

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark
Office
(Box PCT)
Crystal Plaza 2
Washington, DC 20231
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

Date of mailing (day/month/year)

15 July 1999 (15.07.99)

International application No.

PCT/US98/22577

Applicant's or agent's file reference

10461/002WO1

International filing date (day/month/year)

23 October 1998 (23.10.98)

Priority date (day/month/year)

27 October 1997 (27.10.97)

Applicant

FAHEY, Robert, C. et al

1. The designated Office is hereby notified of its election made:



in the demand filed with the International Preliminary Examining Authority on:

27 May 1999 (27.05.99)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

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The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Diana Nissen

Telephone No.: (41-22) 338.83.38

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

16

| | | |
|--|--|---|
| Applicant's or agent's file reference 10461/002WO1 | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) | |
| International application No. PCT/US98/22577 | International filing date (day/month/year) 23 OCTOBER 1998 | Priority date (day/month/year) 27 OCTOBER 1997 |
| International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet. | | |
| Applicant THE REGENTS OF THE UNIVERSITY OF CALIFORNIA | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

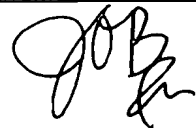
2. This REPORT consists of a total of 5 sheets.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☐ Certain observations on the international application

| | |
|--|---|
| Date of submission of the demand 27 MAY 1999 | Date of completion of this report 14 FEBRUARY 2000 |
| Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 | Authorized officer RODNEY P. SWARTZ, PH.D.  |
| Facsimile No. (703) 305-3230 | Telephone No. (703) 308-0196 |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US98/22577

I. Basis of the report

1. This report has been drawn on the basis of *(Substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments):*

- ☒ the international application as originally filed.
- ☒ the description, pages 1-72 , as originally filed.
 pages NONE , filed with the demand.
 pages NONE , filed with the letter of _____
 pages _____ , filed with the letter of _____
- ☒ the claims, Nos. 1-45 , as originally filed.
 Nos. NONE , as amended under Article 19.
 Nos. NONE , filed with the demand.
 Nos. NONE , filed with the letter of _____
 Nos. _____ , filed with the letter of _____
- ☒ the drawings, sheets/fig 1-16 , as originally filed.
 sheets/fig NONE , filed with the demand.
 sheets/fig NONE , filed with the letter of _____
 sheets/fig _____ , filed with the letter of _____

2. The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/fig NONE

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the ~~Supplemental Box~~ Additional observations below (Rule 70.2(c)).

4. Additional observations, if necessary:

NONE

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

| | | | |
|-------------------------------|--------|------------------------------------|-----|
| Novelty (N) | Claims | <u>4-6, 8-11, 15-17, 23-42</u> | YES |
| | Claims | <u>1-3, 7, 12-14, 18-22, 43-45</u> | NO |
| Inventive Step (IS) | Claims | <u>4-6, 8-11, 15-17, 23-42</u> | YES |
| | Claims | <u>1-3, 7, 12-14, 18-22, 43-45</u> | NO |
| Industrial Applicability (IA) | Claims | <u>1-45</u> | YES |
| | Claims | <u>NONE</u> | NO |

2. CITATIONS AND EXPLANATIONS

Claims 1-3, 7, 12-14, 18-22, and 43-45 lack novelty under PCT Article 33(2) as being anticipated by Newton et al.

Newton et al teach a method of detecting and quantifying mycothiol in a sample by incubating a reagent (mBBR) for a time sufficient for said reagent to react with mycothiol, and detecting said reaction of said reagent with mycothiol (section **Cell extraction for thiol analysis**, page 1992). The detection of the mycothiol is indicative of the presence of a member of the taxa actinomycetes, specifically mycobacteria. The samples used for detection of mycothiol were obtained as patient isolates from various university medical centers (section **Bacterial strains and culture conditions**, page 1991). Newton et al teach comparison of mycothiol production from mycobacteria with production of mycothiol production in other bacteria (Table 1).

Claims 4-6, 8-11, 15-17, and 23-42 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest the production of and use of antibodies for the detection and/or quantitation of mycothiol.

Claims 1-45 meet the criteria set out in PCT Article 33(4) for industrial applicability.

----- NEW CITATIONS -----

NONE

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VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Claim 43 is objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or contents thereof: line 3, "myoethiol" should be "mycothiol" and "fluroescent" should be "fluorescent".

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below:

IPC(7): A61K 39/04, 39/40; C12N 1/12; C07D 277/62 and US Cl.: 424/164.1, 168.1, 248.1; 435/252.1, 253.1; 548/174; 554/101

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US98/22577

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : A61K 39/04, 39/40; C12N 1/12; C07D 277/62

US CL : 424/164.1, 168.1, 248.1; 435/252.1, 253.1; 548/174; 554/101

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 424/164.1, 168.1, 248.1; 435/252.1, 253.1; 548/174; 554/101

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS, BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-------------|--|--|
| X - Y | SPIES, H.S. et al. Thiols of intracellular pathogens. European Journal of Biochemistry. August 1994, Vol. 224, pages 203-213, see entire document. | 1,2,7,8, 18 - 24, 28, 29, 30, 34, 43, 44, 45 ----- 3-6, 9-17, 25-27, 31-33, 35-42 |

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

| | |
|---|--|
| * Special categories of cited documents: | *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
| *A* document defining the general state of the art which is not considered to be of particular relevance | *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
| *E* earlier document published on or after the international filing date | *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | *A* document member of the same patent family |
| *O* document referring to an oral disclosure, use, exhibition or other means | |
| *P* document published prior to the international filing date but later than the priority date claimed | |

Date of the actual completion of the international search

11 DECEMBER 1998

Date of mailing of the international search report

14 JAN 1999

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks

Authorized officer

[Signature]